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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2016/2017

BAE2014 – SEMINAR IN ANALYTICAL ECONOMICS

(All section/Group)

1 JUNE 2017
9.00 am to 11.00 am
(2 hours)

INSTRUCTION TO STUDENT

1. This **THREE (3)** pages of question paper consists of **TWO (2)** sections, **SECTION A** and **SECTION B**. Section A consists of **TWO (2) Passage Reviews** and Section B consists of **TWO (2) Structured Questions**.
2. **Answer all questions.**
3. Marks are shown at the end of each question.
4. Write all your answers in the answer booklet provided.

SECTION A: PASSAGE REVIEWS (Total : 40 Marks)**Question One (Total : 20 marks)**

Read Passage 1 and answer the following questions.

Passage 1

by Kumru & Sarntisart (2016)

A part of the Muslim population is unwilling to deposit their savings into banks that do not operate according to their religious principles (Demirguc-Kunt et al., 2013). An alternative (Islamic) banks and conventional banks have established dedicated Islamic banking subsidiaries, aimed at providing financial services that comply with religious principles in order to serve the financial needs of Muslims who abstain from using the conventional banking system because of their religious concerns. It is well documented that financial sector development boosts economic growth. In a recent paper, Imam and Kpodar (2015) show that Islamic banking is positively associated with economic growth, even after controlling for the level of financial depth. Yet no formal theoretical analysis of Islamic banking is available.

Economists realized that individuals' economic decisions also depend on their religious concerns in general, and their afterlife beliefs. This implies that religious individuals' banking decisions differ from those of non-religious individuals. The literature regarding individuals' religious concerns is still developing and hence the number of studies that deal with them is pretty limited. Myles and Omar Ali (2010) assume that individuals' religious concerns are related to warm glow or to social custom motives. On the other hand, Chang (2005) models individuals' religious concerns by using the afterlife utility concept. The utility function consists of two types of expenditures, that is, spending for the present life and spending for the afterlife. This includes, for example, participating in religious activities, donating to the needy, or investing in a way that complies with one's religious beliefs. In this paper, we follow Chang and model individuals' religious concerns accordingly.

This paper aims to fill this gap in the literature by addressing the growth and welfare implications of the Islamic banking system. We develop our model to incorporate both conventional and Islamic banking systems. In our model, religious individuals do not use conventional banks since using them generates a huge utility loss. This assumption does not mean that all religious Muslims stay away from using conventional banks. It only means that there is a positive measure of Muslims who stay away from conventional banks. This assumption is realistic for the following reasons. First, Islam considers offering and taking interest (riba) is a serious offense, worse than adultery, and attracts severe afterlife punishment. Hence, it is natural to think that there will be some pious Muslims who do not use conventional banks at all. Second, recent empirical studies find that at least some Muslims take the prohibition of interest seriously in their banking decisions. For instance, Demirguc-Kunt et al. (2013) find that, after controlling for other characteristics, Muslims are significantly less likely than non-Muslims to own a conventional bank account or save at a conventional bank. Naceur et al. (2015) reaches a similar conclusion. Third, Islamic banking has grown rapidly since its first introduction in Egypt in 1963. Islamic banking is currently practiced in more than 50 countries worldwide. In Iran, Pakistan, and Sudan, only Islamic banking is allowed. In other predominantly Muslim countries, such as Bangladesh, Egypt, Malaysia, Indonesia, and Turkey, Islamic banking coexists with conventional banking. Islamic banking is not limited to predominantly Muslim countries.

Extracted from Kumru, C. S., & Sarntisart, S. (2016). The title of this article is not provided due to the nature of the examination question. *Economic Modelling*, 54, 1–12.

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Review Passage 1 and answer the following questions.

- (a) Suggest a suitable topic for Passage 1. (2 marks)
 (b) Discuss the conceptual framework used in Passage 1. (6 marks)
 (c) What are the justifications for the assumption made in this study? (12 marks)

Question Two (Total : 20 marks)

Read Passage 2 and answer the following questions.

Passage 2

by Fang & Chang (2016)

Many studies have examined the energy–growth nexus in different countries and regions for different time periods using different econometric methods, and diverse and conflicting results are not uncommon. This paper investigates the causal relationship between energy consumption and economic development in 16 Asia Pacific countries using a multivariate framework which takes labor, physical and human capital, and energy as factor inputs to the production function.

In the large body of literature on energy–growth nexus, studies which focus specifically on a panel of Asia Pacific countries are limited. Chen et al. (2007) are a pioneer who applies panel data procedures to estimate the relationships between electricity consumption and GDP for 10 developing Asian countries. In the late 2000s, the panel data approach has become more and more popular in analyzing the causal relationship between energy use and economic growth. The method is further developed to enable the analysis of cross-sectional dependence (Pesaran, 2007), structural breaks (Westerlund, 2006), quantile heterogeneous cointegration (Xiao, 2009).

One paper that is most closely related to ours is Nasreen and Anwar (2014)'s study on the causal relationship between economic growth, trade openness and energy consumption for 15 Asian countries over the period of 1980–2011. However, they do not take into consideration the cross-sectional dependence among the 15 economies, and focus on how trade could affect energy consumption and GDP. Chang et al. (2013) and Yildirim et al. (2015) account for both heterogeneity and interdependency, but neither considers the role of human capital in the energy–growth linkage.

The Asia-Pacific region has increasingly become more important and Asia Pacific countries have contributed greatly to the global economic development. The share of GDP in emerging and developing Asia has increased gradually from 9% in 1980 to 29% in 2014, which is estimated to increase further to 34% in 2020 by International Monetary Fund (World Economic Outlook, 2015). In tandem with its increasing significance in the world economy, the region's energy consumption share grows steadily over the years, increasing from 12% in 1965 to 41% in 2014.

This paper contributes to the existing literature on energy–growth nexus in the following ways. First, to the best of our knowledge, it is among the first studies to examine the causal relationship between energy consumption and economic growth in a multivariate framework which takes into consideration the role of human capital besides physical capital and labor. This bridges the gap between the endogenous growth theory which emphasizes the contribution of human capital and the ecological and energy economists' perspectives that tend to consider mainly the role of energy. Second, this paper explicitly account for the impact of cross-section causal relationship between energy and growth in a region. Third, it contributes to the limited existing evidence on Asia Pacific countries and provides implications for energy and environmental policies in the Asia and Pacific region.

Extracted from : Fang, Z., & Chang, Y. (2016). Energy, human capital and economic growth in Asia Pacific countries - Evidence from a panel cointegration and causality analysis. *Energy Economics*, 56, 177–184.

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Passage 2 is the introduction of a published journal article. Based on Passage 2 and answer the following questions.

- (a) Discuss if the research problem was well explained by the authors. (12 marks)
- (b) Discuss about the contribution of the study. (8 marks)

SECTION B: STRUCTURED QUESTIONS (Total : 60 Marks)

Question One (Total : 30 marks)

- (a) Why is literature review necessary? (6 marks)
- (b) In research, there are deductive, inductive and warrant-based reasoning. Explain each type of reasoning with appropriate examples. (12 marks)
- (c) Explain the difference between theoretical and empirical study. (4 marks)
- (d) Discuss **three** theoretical or conceptual reasoning used in research. (8 marks)

Question Two (Total : 30 marks)

Read the *Abstract* below and answer the following questions

Abstract

by Murad, Abdullah, Boyle, & Amaro (2015)

It is widely argued that industrial production contributes to the global greenhouse gas emissions, particularly carbon dioxide (CO₂) emissions in any countries whether industrialized or developing. This is mainly due to the industrial processes that combine scarce resources to produce tangible goods and intangible services. The industrial processes emit large amounts of CO₂ because of two reasons. First, many manufacturing facilities directly use fossil fuels to create heat and steam needed at various stages of production. Second, energy intensive activities at the manufacturing facilities use more electricity than any other sector so the energy that they use is responsible for vast amounts of CO₂ emissions. Therefore, the per capita emissions in the industrialized countries are typically as much as ten times the average in the developing countries. This study is an effort to forecast and analyze the causality and long run association between CO₂ emissions and industrial activities. The empirical results reveal for Bangladesh that there is no Granger causality between industrial production and CO₂ emission in any direction. The results reveal that any disequilibrium between CO₂ emission and industrial production could take approximately 54 years to converge to the long-run equilibrium. But the adjustment rate for the country's industrial production is positive, as it should be, as well as relatively faster at the rate of 83 percent a year. So any disequilibrium will be corrected mostly by the adjustment in the country's industrial production. The study concludes that the current CO₂ emissions in Bangladesh are below the equilibrium level, which is an advantageous situation for the country. Therefore, it is expected that the Bangladesh's industrial sector will not face stricter CO₂ emission controlling policies and regulations in the near future.

Extracted from Murad, M. W., Abdullah, A., Boyle, S., & Amaro, C. R. (2015). The title of this article is not provided due to the nature of the examination question. *The Journal of Developing Areas*, 49(6), 75–88.

Based on the *Abstract* above, answer the following questions.

- (a) Suggest **2** variables that will be used in the study. (2 marks)
- (b) Justify the suggested variables in (a). (4 marks)
- (c) What are the data that can be used to represent the variables you suggested in (a)? (2 marks)
- (d) How do you determine the data to be used in the study? (6 marks)
- (e) Based on your suggestions in (a) and (c), express the econometrics analysis that you will employ to conduct the study. (16 marks)

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